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EXAMINER

SALDANO, LISA M

ART UNIT

PAPER NUMBER

3673

DATE MAILED: 05/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/863,749

Applicant(s)

FUKUMOTO ET AL.

Examiner

Lisa M. Saldano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on April 26, 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10 and 11 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on two applications filed in Japan on May 26, 2000 and February 19, 2001. It is noted, however, that applicant has not filed a certified copy of either of the applications as required by 35 U.S.C. 119(b).

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

3. The disclosure is objected to because of the following informalities: The element labeled number 15 in the drawing Fig.8 is not discussed in the applicant's written specification. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 3, 4, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lenson (4,978,247). The elements claimed by the applicant are read in the reference.

Regarding claim 1, Lenson discloses a breakwater structure comprising slits, as broadly claimed by the applicant, on an upper portion thereof (see Fig.1, element 20) and a vertical wall defining the offshore side with at least one opening at the lower end of that vertical wall (see Fig.1, elements 14, 32 and 36).

Regarding claim 2, Lenson discloses slits on the upper portion of the structure that are inclined with respect to the direction that the waves propagate (see Fig.1, elements 15 & 20 and column 1, lines 51-57).

Regarding claim 3, Lenson discloses, as broadly claimed by the applicant, a closed upper portion of the structure located between the vertical wall defining the offshore side and the slits (see Fig.1, element 15).

Regarding claim 4, Lenson discloses a lower surface of the structure comprising at least one hole (see Fig.1, elements 34a-e and 36).

Regarding claim 10, Lenson discloses a support base for the breakwater device that comprises a leg structure (Fig.1, elements 14 & 34a-e and column 2, lines 23-35).

Regarding claim 11, Lenson discloses a breakwater structure where the height of the coast-side wall is higher than the height of the vertical wall defining the offshore side of the structure and the position of the slits become higher in elevation toward the coast (see Fig.1, elements 15 & 20).

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6. Claims 1, 3, 4, 5, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Haruta et al. (JP403241111A). The elements claimed by the applicant are read in the reference.

Regarding claim 1, Haruta et al disclose a breakwater structure comprising slits on an upper portion and a vertical wall at the offshore side with at least one opening in its lower end (see Figs. 3a & 3b, elements 14, 16 and 16a).

Regarding claim 3, Haruta et al disclose a structure with a closed upper portion defined between the vertical wall at the offshore side and the slits on the upper portion of the structure. See Figs. 3a & 3b, elements 16 and 16'.

Regarding claim 4, Haruta et al disclose a structure comprising at least one hole in its bottom portion, see Figs. 3a & 3b.

Regarding claim 5, Haruta et al disclose a breakwater structure comprising slits on an upper portion thereof and a vertical wall defining the offshore side with at least one opening at the lower end of the vertical wall. Furthermore, the structure is placed on a mound used as a foundation. See Figs. 1&2, elements 12 and 16.

Regarding claim 7, Haruta et al disclose a breakwater structure with slits and a vertical wall defining the offshore side being placed on a mound and having a closed upper portion between the said vertical wall and slits. See Figs. 3a & 3b, elements 16 and 16'.

Regarding claim 8, Haruta et al further disclose that the breakwater structure with upper portion slits, vertical wall defining its offshore side and a mound foundation comprises a throughpath from a reef to a coast side. See Figs. 2, 3a&3b.

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Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5, 6, 7, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lenson as applied to claims 1-4, 10 and 11 above, and further in view of Haruta et al. (JP403241111A).

Regarding claim 5, Lenson discloses (as previously noted) a breakwater structure comprising slits on an upper portion thereof and a vertical wall defining the offshore side with at least one opening at the lower end of the vertical wall. Although Lenson does not explicitly state that the breakwater structure should be placed on a mound, Haruta teaches placement of a breakwater structure on a mound to create greater breaking waves and to reduce cost associated with building higher breakwater structures to achieve greater wave breaking effectiveness (see abstract). It would have been obvious to one of ordinary skill in the art, to place the breakwater structure on a mound, thereby increasing its effectiveness and reducing overall costs.

In claims 6 and 7, the applicant claims subject matter that is identical to the subject matter claimed in claims 2 and 3. The only difference between the claims is that the breakwater structure is placed on a mound. As previously noted, prior art renders the structure's placement on a mound as a well-known practice. All other elements claimed by the applicant in claims 6 and 7 are also rejected because they are read in Lenson's reference, as is the subject matter of claims 2 and 3.

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Regarding claim 8, Lenson discloses a breakwater structure comprising a seaward (offshore) face and a landward (coast-side face). The structure comprises passages extending between the seaward and landward faces. Furthermore, the breakwater structure comprises spacing in a lower surface to allow water to flow beneath the structure. The disclosed passages and spacing provide a path for flow of water through the structure. Again, although Lenson did not explicitly state that the breakwater structure should be place on a mound, Haruta et al clearly teach the practice, which would be used by anyone with ordinary skill in the art to achieve more cost effective wave breaking. The elements claimed by the applicant are read in Lenson's and Haruta's references.

Allowable Subject Matter

9. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Umeda et al (JP405331817A) disclose a breakwater with slits and inclined opening and through-paths. Umeda et al. also teach placement of the breakwater structure on a mound (element 58). Tanaka et al. (JP403281811A) disclose a breakwater structure with slits on the upper portion and inclined openings in the direction of wave propagation. Ansaldo (EP0576771A1) discloses a breakwater structure with a vertical wall defining the offshore side of the structure and a coast-side wall that is higher than the vertical wall on the offshore side. Massaki et al. disclose placement of a breakwater structure on a mound.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa M. Saldano whose telephone number is 703-605-1167. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on 703-308-2978. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Lisa M. Saldano
Examiner
Art Unit 3673

April 29, 2002



**HEATHER SHACKELFORD
SUPERVISORY PATENT EXAMINER
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